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DATE MAILED: 03/25/2009

NOTICE OF ALLOWANCE AND FEE(S) DUE

37003 7590 63252009

SCHLUMBERGER-DOLL RESEARCH
ATTN: INTELLECTUAL PROPERTY LAW DEPARTMENT
PO ROX 475045

EXAMINER
PHILLIPS, FORRIEST M

ART UNIT PAPER NUMBER

2837

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.			
10/695,078	10/28/2003	Abderrhamane Ounadjela	60.1543 US NP	4157			
THE COLINITATION, DODERIOLE ACQUISTIC SOURCE							

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(8) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/25/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

CAMBRIDGE, MA 02142

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

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CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)) Note Fee(pape have	Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.			
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						(Signature)	
						(Date)	
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR	1	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
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TITLE OF INVENTION	: BOREHOLE ACOUS'	TIC SOURCE	_				
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nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/25/2009	
EXAM	INER	ART UNIT	CLASS-SUBCLASS				
PHILLIPS, F		2837	181-121000				
"Fee Address" ind PTO/SB/47; Rev 03-0 Number is required.	ondence address (or Cha 3/122) attached. ication (or "Fee Address' 2 or more recent) attach	inge of Correspondence "Indication form acd. Use of a Customer	For printing on the p (1) the names of up to or agents OR, alternativ (2) the name of a single registered attorney or a 2 registered patent attoolisted, no name will be THE PATENT (print or type).	3 registered patent a vely, e firm (having as a n igent) and the names meys or agents. If no printed.	nember a 2		
PLEASE NOTE: Uni recordation as set forti (A) NAME OF ASSIG	ess an assignee is ident h in 37 CFR 3.11. Comp GNEE	ified below, no assigne pletion of this form is N	e data will appear on the pa OT a substitute for filing an (B) RESIDENCE: (CITY printed on the patent):	atent. If an assignee assignment. and STATE OR CO	UNTRY)	_	
4a. The following fee(s):	are submitted:		4b. Payment of Fee(s): (Plea A check is enclosed. Payment by credit car	se first reapply any	previously paid issue fee		
	s SMALL ENTITY state	as. See 37 CFR 1.27.			ENTITY status. Sec 37 C		
NOTE: The Issue Fee an interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not be accept ites Patent and Tradema	ted from anyone other than t rk Office.	he applicant; a regist	ered attorney or agent; or t	he assignee or other party in	
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37003 75	590 03/25/2009	EXAMINER		
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ATTN: INTELLECTUAL PROPERTY LAW DEPARTMENT			ART UNIT	PAPER NUMBER
P.O. BOX 425045		2837		
CAMBRIDGE, M	A 02142	DATE 3 CAR UP. 03/05/0000		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 284 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 284 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 (571)-272-4200.

Application No. Applicant(s) 10/695 078 OUNADJELA, ABDERRHAMANE Notice of Allowability Examiner Art Unit FORREST M PHILLIPS 2837 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to amendment filed with request for continued examination 1/23/09. The allowed claim(s) is/are 1-57. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) \(\subseteq \text{Some*} \) c) \(\subseteq \text{None} \) of the: 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. Examiner's Amendment/Comment Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance

/F. M. P./ Examiner, Art Unit 2837

of Biological Material

9. ☐ Other .

Application/Control Number: 10/695,078

Art Unit: 2837

DETAILED ACTION

Allowable Subject Matter

Claims 1-57 are allowed.

The following is an examiner's statement of reasons for allowance: The prior art of record fails to disclose or fairly suggest the invention as claimed. The prior art Petermann discloses A reaction mass positioned along an axis of a sonde; and at least two pads, wherein each of said at least two pads are connected to said sonde and said reaction mass using a plurality of variable angle pushing rods to convert an axial motion into a radial motion so that said at least two pads generate elastic waves through the earth formation upon activation of said first reaction mass as a result of impact of the pads against the wall; wherein the impedance of the acoustic borehole source may be controlled using said plurality of variable angle pushing rods.

Mallet discloses the use of a plurality of motorized reaction masses (48 in figure 3) as a means for imparting signals in a downhole environment.

The prior art fails to disclose or suggest variable angle push rods which contact the earth at a designated location, controlling the impedance through the angle of the rod, and wherein activation of the first motorized reaction mass provides variable location adjustment for said at least two pads while said at least two pads are positioned at the designated location of the acoustic borehole source, such that said at least two pads generate elastic waves through the earth formation at multiple locations while at the designated location.

Application/Control Number: 10/695,078

Art Unit: 2837

The method steps corresponding to the disclosed product structure are implicitly taught by the product structure. The method steps corresponding to product structure that is not disclosed or suggested are also not disclosed or suggested.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FORREST M. PHILLIPS whose telephone number is (571)272-9020. The examiner can normally be reached on Monday through Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on 5712722227. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/695,078 Page 4

Art Unit: 2837

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/F. M. P./ Examiner, Art Unit 2837

/Jeffrey Donels/ Primary Examiner, Art Unit 2837